

WHAT IS CLAIMED IS:

1. A remote maintenance system in which a maintenance center  
in charge of remote maintenance is connected to an  
apparatus-to-be-maintained by a communication channel and  
a maintenance monitor mechanism is installed in the  
apparatus-to-be-maintained or on the communication  
channel; wherein  
the maintenance monitor mechanism comprises of  
a maintenance control section that controls and carries  
out remote maintenance of the apparatus-to-be-maintained,  
a maintenance history storage unit that records  
maintenance history, and  
a display unit; and  
the remote maintenance system acquires the date and  
time of the maintenance last carried out from the maintenance  
history storage unit and displays "Maintenance Not  
Problematic" if the difference between the date and time  
of the maintenance and the current date and time does not  
exceed a required maintenance interval or displays  
"Maintenance Problematic" if the difference exceeds the  
interval.
2. A remote maintenance system according to Claim 1, wherein  
the date and time of the last maintenance out of those

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that were carried out with no problem found concerning utilization of the apparatus is used instead of the date and time of the maintenance last carried out.

5       3. A remote maintenance system according to Claim 1, wherein  
          the system contains different required maintenance intervals dependent upon the type of maintenance controlled by the maintenance control section, and switches the required maintenance interval corresponding to each type  
10      of maintenance and displays "Maintenance Problematic/Not Problematic".

15      4. A remote maintenance system according to Claim 1, wherein  
          the system displays restrictions concerning utilization of the apparatus in case of "Maintenance Problematic".

20      5. A remote maintenance system according to Claim 1, wherein  
          the system displays current status if maintenance activity is being carried out in case of "Maintenance Problematic".

25      6. A remote maintenance system according to Claim 5, wherein,  
          if any restriction concerning utilization of the apparatus is caused, the system displays the restriction.

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7. A remote maintenance system according to Claim 1, wherein,  
at the request of an operator, the system judges whether  
the difference exceeds the required maintenance interval  
and displays accordingly.

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8. A remote maintenance system according to Claim 1, wherein  
the system judges whether the battery in the maintenance  
monitor mechanism or in the apparatus-to-be-maintained has  
run down and displays the result of the judgment.

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9. A remote maintenance system according to Claim 1, wherein  
the system judges whether the current date and time  
of the timer in the maintenance monitor mechanism or in  
the apparatus-to-be-maintained is correct and displays the  
result of the judgment.

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10. A remote maintenance system according to Claim 1, wherein  
the system is equipped with a GPS (Global Positioning  
System) installed inside a mobile vehicle in charge of  
20 maintenance activity, and transmits and displays the  
current position data of the mobile vehicle from the GPS  
to the display unit via the communication channel.

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11. A remote maintenance system according to Claim 1, wherein  
25 the system calculates the hours required until the

arrival of the mobile vehicle at the location of the apparatus-to-be-maintained, and transmits and displays the required hours on the display unit.

5        12. A remote maintenance system according to Claim 1, wherein  
            the system is equipped with a maintenance history storage unit installed in the maintenance center, and,  
            when the communication channel between the maintenance center and the apparatus-to-be-maintained is connected,  
10      compares the maintenance history recorded in the maintenance history storage unit in the maintenance center at the last connection of the communication channel to the maintenance history recorded in the maintenance history storage unit in the maintenance monitor mechanism, and  
15      carries out remote maintenance if the two records agree with each other or shuts down the communication channel if not.

20        13. A remote maintenance system according to Claim 1, wherein  
            the system displays the maintenance histories in the maintenance history storage unit on the display unit.

25        14. A remote maintenance system according to Claim 1, wherein  
            the system displays the required maintenance interval, current time of the timer, and maintenance history in the

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maintenance history storage unit, either in strings of  
numeric numbers of the frequency distribution calculated  
per specified unit time or in a form of distribution histogram  
charting the strings of numeric numbers in time series,  
5 on the display unit.